REMARKS

Claims 1-13 remain pending in this application for which applicants seek reconsideration.

Amendment

Page 14 and the Abstract of the specification have been amended to remove minor informalities contained therein, namely correcting a typographical error on page 14 and conforming the Abstract (removing the term "means") to U.S. patent practice.

Minor editorial changes have been made to claims 1, 3, 4, 6, 7, 9, 12, and 13 to improve their form and readability. Claim 1 further has been amended to clarify the meaning of "information provided" already set forth therein. Applicants submit that all the changes made to the claims are for purposes of improving their form and readability, not for narrowing the scope of the claims.

No new matter has been introduced.

Allowable Claims

Claims 5-7 have been indicated to be allowable if they are placed in independent form. As independent claim 1 is deemed allowable, these allowable dependent claims have maintained in dependent form.

Art Rejection

Claims 1-4 and 8-13 were rejected under 35 U.S.C. § 103(a) as unpatentable over Uehara (JP 07-034858) in view of Hepburn (USP 6,813,882). Applicants traverse this rejection because the applied references would not have disclosed or taught determining the regeneration end of a filter based on an integrated value of oxygen mass flow rate, as set forth in independent claims 1, 12, and 13.

Independent claims 1, 12, and 13 each call for determining the regeneration end of the filter when an integrated value of an oxygen mass flow rate reaches a predetermined value. That is, these claims call for determining the regeneration end based on the amount of oxygen fed to the filter.

In contrast to the examiner's assertion, Uehara would not have disclosed or taught determining the regeneration end based on the amount of oxygen fed to the filter, let alone based on an integrated value of oxygen mass flow rate. Rather, Uehara determines the regeneration end based on the oxygen concentration in the exhaust gas. Specifically, Uehara

sets a coefficient b (see Fig. 5) corresponding to the oxygen concentration contained in the exhaust gas, and determines the regeneration end if the time-differential value of the coefficient b2 reaches a predetermined value. Note that the amount of oxygen fed to the filter cannot be obtained merely with the oxygen concentration. Uehara would not have disclosed or taught determining the regeneration end based on the amount oxygen fed to the filter or an integrated value of the oxygen mass flow rate.

Hepburn, which was merely relied upon for the proposition that placing a filter downstream of an oxidation catalyst would have been obvious, would not have alleviated Uehara's shortcomings note above, even if the combination were deemed proper.

Conclusion

Applicants submit that claims 1-13 patentably distinguish over the applied references and are in condition for allowance. Should the examiner have any issues concerning this reply or any other outstanding issues remaining in this application, applicants urge the examiner to contact the undersigned to expedite prosecution.

Respectfully submitted,

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DATE

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